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Journal of the Society of Arts.

FRIDAY, JULY 10, 1868.

Announcements by the Council.

EXAMINATIONS, 1868.

The following candidates having each obtained the same number of First-class certificates, in the present and three preceding years, as the Prince Consort's prizeman, the Council have this year voted the sum of fifty guineas to be divided amongst them. It will be understood that these candidates are not thus disqualified from competing for the Prince Consort's Prize in future years:—

- 1104—Hugh Morgan, 21, City of London College, clerk.
- 1641—Edward Turner Sims, jun., 21, Southampton Athenæum, clerk.
- 417—Henry George White, 26, Devonport Mechanics' Institute, shipwright.
- 1131—William John Wilson, 25, Royal Polytechnic Classes, engineer's clerk.

WORKMEN'S HOLIDAYS.

A discussion having taken place on this subject at the Conference of Representatives (see page 593,) the Council would be much obliged to any manufacturer or other employer of labour who, having tried the plan of allowing his workmen to take their holidays at once, rather than piecemeal, would kindly communicate his experience to the Secretary of the Society of Arts.

SUBSCRIPTIONS.

The Midsummer subscriptions are due, and should be forwarded by cheque or Post-office order, crossed "Coutts and Co.," and made payable to Mr. Samuel Thomas Davenport, Financial Officer.

Proceedings of Institutions.

EAST LANCASHIRE UNION OF INSTITUTIONS.—The annual summer examinations of the above Union was held in the large assembly-room of the Mechanics' Institution, Burnley, on the 13th of May, when 159 candidates presented themselves for examination from the various institutions in East Lancashire. The examination was conducted by U. J. Kay-Shuttleworth Esq., Mr. Alderman Wilkinson, Mr. L. Clement, Mr. T. W. Shore (organizing master), and other gentlemen connected with the Union. The number of candidates shows an increase of 31 on the number present last year, and from the reports sent in by the examiners, the Council of the Union have been gratified to find a marked improvement in proficiency. The results were published in the local papers, and the Council have awarded £28 13s. 6d. in prizes to the candidates. The total number of failures was 20; 13 males and 7 females,

so that 139 candidates will obtain either a prize or a certificate. At the spring examination, held on March 28th, 59 candidates also were examined, and 50 succeeded in obtaining prizes or certificates. The examinations of the Union therefore have been attended this year by 218 candidates, 172 males and 46 females. The Council have issued the following statement:—"In publishing the results of the examination held in Burnley, we have pleasure in congratulating the candidates on their success in earning an amount of prizes considerably in excess of the amount given in former years. At the annual distribution of prizes each successful candidate will receive either a book or books of the value stated, or a certificate of competency or of merit. The hope that the number of candidates in the first and second classes will be steadily increased in future years, is encouraged by the very decided improvement in the proficiency shown by this year's male candidates in the first section of the third class, and by many of those in the second section. Perseverance and industry in the evening classes will enable each of these candidates to win, in every successive year, a higher position and a more valuable prize, and eventually to qualify themselves for the highest prize (books to the value of £3) in the first class. With reference to the examination of the female candidates, the merit they have shown in their written papers, their samples of sewing, and their reading aloud, entitle them to commendation; an increased activity in establishing evening classes for young women, and preparing them to compete at the examinations of the Union in March and June is, however, needed in order to render this important part of the examination scheme more generally useful to the district."

YORKSHIRE UNION OF MECHANICS' INSTITUTES (ECCLESHILL).—The village of Ecclehill, little over two miles distant from Bradford, has progressed with the rapidity that has characterised all the villages bordering on the town. Located on a lofty eminence, originally moorland, the salubrity of the air and the extensive prospects of the surrounding country have tempted wealthy people to erect mansions in the most beautiful situations, which are gradually imparting a new and pleasing feature to the district. The inhabitants are alive to the religious and educational wants of the neighbourhood. Aids to the development of both of these higher requirements of the community are not scarce, and a Mechanics' Institute has afforded the means of education to the young people. The institute, which has 100 members, is held in rooms in Belle Vue-buildings, Town-street, but for a long time past the accommodation has been unequal to meet the demands upon it. An effort to secure a commodious and permanent home for the members has met with ready and substantial support, and the objects of the promoters are in a fair way of realization. On Saturday afternoon, June 20, the corner-stone of a new building for the purposes of the institute was laid, amid much rejoicing, by Mr. Alderman Brown, of Bradford. The site is on an elevated position, commanding wide and extensive views of the picturesque district bounding this portion of Airedale. The proposed institute, of the Doric order, will be erected at a cost of £1,200, of which nearly £700 has been subscribed. The area to be covered by the building is 64 feet by 40 feet, and will consist of two stories. A reading-room, 20 feet by 18 feet, four class-rooms, a library, and a cooking-room, each 15 feet by 12 feet, will form the lower storey, while in the upper story will be a commodious lecture-hall, capable of accommodating between 600 and 700 persons, and suitable for lectures, concerts, public meetings, &c. The event of laying the corner-stone was one of great satisfaction to the inhabitants, who displayed numerous flags from the mills and house-tops. A procession, including the principal and most active friends of the institution, many local gentlemen of influence and position, and several friendly societies, was marshalled in the Cricket-field, and marched, headed by the Ecclehill brass band,

through the principal streets of the village, to the site of the institute. Here a large concourse had gathered to witness the ceremony. Amongst the gentlemen present were Mr. Ald. Brown and Mr. Councillor Briggs (Bradford), Mr. Ald. Yewdall (Leeds), Rev. J. Aston, Rev. S. Beavan, Rev. J. H. Penrith, Mr. Wm. Milnes, Mr. Henry H. Sales (Yorkshire Union of Institutes), Mr. James Hanson, Mr. Wm. Smith (president of the institute), Mr. John Hutton, Mr. Samuel Smith, Mr. Wm. Hutton, Mr. Wm. Womersley, Mr. Isaac Bakes, Mr. J. Boyd, Mr. J. Hargreaves, and Mr. David Smith. The hymn, "Before Jehovah's awful throne," was first sung. A bottle, containing the local papers, and a variety of documents, and some current coins, was then deposited in a cavity beneath the stone. Mr. Ald. Brown spread the mortar, the stone was lowered into its place, and he applied the usual tests to secure its being properly and safely laid. He then declared the stone well and duly laid, and prayed that God might so bless the work that it might be brought to a happy conclusion, and that it might be for the good of the township of Eccleshill for many generations. The Rev. J. Aston next offered up prayer. Mr. J. Hutton stated that Mr. Brown had promised to give £20, and a member of the committee had promised to double his subscription, making £50, in the hope that others would follow his example. The Doxology was sung, and the assembly separated. In the evening a meeting was held in the United Free Methodist Schoolroom, a large party having previously partaken of tea in the Wesleyan Schoolroom. The chair was taken by the Mayor of Bradford, and the claims of the enterprise were warmly advocated by many of the gentlemen who had been present at the afternoon ceremony.

DESCRIPTION OF THE SOCIETY'S PICTURES PAINTED BY JAMES BARRY.

The following description, written towards the latter part of the last century, has been reprinted in consequence of the wish expressed by the members at the last Annual General Meeting:—

The late James Barry, the artist to whose exertions the world is indebted for this valuable effort, has had, in the execution of it, the patriotic intention of offering to the public a practical illustration of the arguments he had occasion to adduce against opinions generally received and highly derogatory to the honour and genius of the British nation.

The opinions of such men as the Abbé du Bois, the President Montesquieu, and the Abbé Winckelman, could not fail to make a deep impression upon the public mind, and it unfortunately happened that these philosophical investigators of the human capacity, the art, and its history have followed each other in assigning limits to our national genius; they ascribe to it a certain character of heaviness and sterility of fancy, and affect to deduce them from physical causes; but they have wilfully taken advantage, or have been ignorant of, and deceived by, certain impediments which have happened casually to retard or prevent us from keeping pace with other nations in the acquisition of some of the fine arts, and have laid it down as a position from the same mode of reasoning, that the thing is impossible, from the supposition that we are naturally incapacitated by the cloudiness of our atmosphere, our soil, our food, and the very frame of our nerves. They assert that we have no imagination, no taste, no sensibility; that we are cold and unfeeling to the powers of music;* that we succeed in nothing in which genius is requisite;† and that if we ever merit admiration, it is for the hand and execution of the workman, not for the design of the artist; that we‡ partake so much of the distempers of our climate, as to disrelish everything, even life itself; that our poets

are devoid of true taste and true imagery; that they make a great noise, but present nothing to the mind; and that our natural capacity for fine arts amounts to very little, or nothing at all.* Such is the unjust and illiberal picture of British genius, with respect to the fine arts, as drawn by the mistaken, though respectable authors above mentioned; to refute which, Mr. Barry published his "Inquiry into the real and imaginary Obstruction to the Acquisition of the Fine Arts in England;"† and in the performance of the magnificent work now before us, it appears, as well from his own "Account of the Pictures‡ as from his "Letter to the Dilettanti Society,"§ that it was his intention to effect that great desideratum of art, viz., the union or association of the Grecian style and character of design, with all those lesser accomplishments which the moderns have so happily achieved. Such an undertaking, so bold, so singular, and so unprecedented, reflects the highest honour on this eminent artist, who died on the 26th of February, 1806, in the fifty-sixth year of his age; and whose corpse was deposited in St. Paul's Cathedral on the 8th of May following, between the remains of Sir Christopher Wren and Sir Joshua Reynolds. These paintings will remain a monument to perpetuate his memory, honourable to himself and valuable to the Society.

The series consists of six pictures, on dignified and important subjects, so connected as to illustrate this great maxim of moral truth, "That the attainment of happiness, individual as well as public, depends on the development, proper cultivation, and perfection, of the human faculties, physical and moral, which are so well calculated to lead human nature to its true rank, and the glorious designation assigned for it by Providence." To illustrate this doctrine, the first picture exhibits mankind in a savage state, exposed to all the inconvenience and misery of neglected culture; the second represents a harvest-home, or thanksgiving to Ceres and Bacchus; the third, the victors at Olympia; the fourth, navigation, or the triumph of the Thames; the fifth, the distribution of rewards of the Society; and the sixth, Elysium, or the state of final retribution. Three of these subjects are truly poetical; the others historical.

The pictures are all of the same height, viz. eleven feet ten inches; and the first, second, fourth, and fifth, are fifteen feet two inches long; the third, and sixth, which occupy the whole breadth of the room, at the north and south ends, are each forty two feet long. The pictures were completed and publicly exhibited in 1783, and were presented to the Society in 1784.

FIRST PICTURE.—"ORPHEUS."

The scenery of this picture exhibits a view of the mountainous and desert country of Thrace; near the centre of the piece, is Orpheus, in an action of great energy, enthusiastically singing his divine poems, his right-hand rapturously stretched towards Heaven; and for the harmonious accompaniment of his instructive song, the several fingers of his left hand are employed upon the various strings of the lyre suspended from his shoulder, representing him, according to his own assumption, as the inspired messenger and founder of the Grecian theology.

The story of Orpheus has exercised the pencils of many painters, who by realizing the poetical metaphor, have overlooked everything valuable in it; but Mr. Barry, instead of surrounding him with such auditors as trees, birds, and wild beasts, has united in his character the legislator, the divine, and the philosopher, as well as the musician, and has placed him in a wild and savage country, surrounded by people as uncultivated as the land they inhabit, depending upon the chase for

* L'Esprit des Lois, ch. ii., vi., xiv.

† Du Bois, Part II., ch. xii.

‡ L'Esprit des Lois, ch. ii., vi., xiv.

* Hist. de l'Art, par l'Abbé Winckelman, p. 48.

† Printed by T. Becket, 1775.

‡ Published in 1798.

§ Published by J. Walker, 1779. See pp. 64, 132, 152.

their subsistence; whilst he, as a messenger from the gods, to whose mansions he seems pointing, is pouring forth songs of instruction, which he accompanies with the music of his lyre.

By the action of Orpheus, the song appears the principal, and the music an accessory part; as it should always be where utility and instruction are intended. His hearers, who are represented in what is called a state of nature, are most of them armed with clubs, and clad in the spoils of wild beasts; in allusion to their being possessed of courage and strength to subdue lions and tigers, but wanting wisdom and skill to prevent retaliation on themselves or their feeble offspring. This latter circumstance is finely illustrated, by a woman at some distance on the other side of the river, milking a goat, her two children sitting near her, at the entrance of the habitation, a cave, where they are ill-secured against a lion, who discovers them as he is prowling about for prey: still further in the distance are seen two horses, one of which is run down by a tiger; by this incident it is clearly pointed out that the want of human culture is an evil which extends beyond our own species, to all animals intended for domestication, and which have no other defence than the wisdom and industry of man.

It is a circumstance often observed by travellers, that the value and estimation of women increase according to the growth and cultivation of society, and that among savage nations their merits are disregarded, and they are in a condition little better than beasts of burden; all offices of fatigue and labour, war and hunting excepted, being reserved for them. It is to prove the truth of this observation, that a woman is leaning on her male companion, and carrying a dead fawn upon her shoulder. As Orpheus is said to have taught the use of letters, the theogony or generation of the gods, and the worship due to them, there is placed near him, on his right-hand, a scroll of mythological matters respecting the cosmogony and the mundane egg, &c., which is respectfully inspected by two admiring savages behind; and in the advanced part of the fore-ground are, a lamb bound, a fire kindled, and other preparations for sacrifice. The countenances and actions of the several hearers are happily contrasted, and well exhibit the effects of those lessons on the various dispositions in the sensibility and pious resignation so peculiarly characteristic of female nature, as well as in the various impressions of contemplation and reflection in the other sex, one of whom, contemplating his hands, and the various uses to which they are convertible, appears as if, for the first time, struck with the grand idea, that knowledge is power. About the fore-ground are scattered fragments of the Chaonian mast, or acorns, the miserable subsistence derived from spontaneous uncultivated nature. The whole of this picture shows with peculiar energy the effect of those benefits which accrue to mankind from religion and philosophy, and the absolute necessity of substituting the love and pursuit of truth, justice, order, and social virtue, in lieu of the fraud, violence, and disorder, of the savage state.

SECOND PICTURE.—“A GRECIAN HARVEST HOME.”

The warm glow of colouring spread over this picture, and the elegance of the figures in the more conspicuous parts of it, form a striking and beautiful contrast to the picture already described. The season is, as the title expresses, that of harvest; and as most of the persons represented are employed in rural sports, the evening is chosen, as the most proper time for such relaxation from the labours of the field.

In the fore-ground is a double terminal figure of Sylvanus and Pan, with their proper attributes; round which, young men and women, in beautiful forms and lightly habited, are dancing to the music of a rural pipe and tabor, and seem, in the language of the poet, to

“———trip it as they go
“on the light fantastic toe.”

Behind them are oxen with a load of corn, and other characteristic marks of the season of the year. On one side of this happy group, appears the father, with a fillet round his head, and in his hand a staff, his aged wife along with him, beholding and partaking of the festivity of the scene.

In the opposite corner of the picture are some rustics sitting, in drunken disorder, with the fruits of the earth and implements of husbandry near them: these might serve as a foil, if any foil were necessary, to the beautiful dancing figures already described.

The distant parts of this pleasing picture exhibit a view of a fertile cultivated country, with a farm-house, near which are men wrestling, and engaged in other manly exercises which strengthen the body and elevate the mind to heroic actions; aged men are sitting and lying along, discoursing, and enjoying a view of those athletic sports, in which they can no longer engage. Here are also seen the various employments of a country life, as binding corn, tending bees, courtship, and everywhere a number of children. A marriage procession is advancing from a distant temple; and the joy of the accompanying figures expresses the happiness arising on such occasions, the labourers even suspending their work to hail the happy pair; in short, whatever can best point out a state of happiness, simplicity, and fecundity, in which, though not attended with much *éclat*, the duty we owe to God, our neighbour and ourselves, is perhaps better attended to than in any other state of life. Still further to embellish this picture, the artist has introduced, sitting on a pent-house, a peacock in fine plumage; and at the top of the picture, Ceres, Bacchus, Pan, &c., are looking down on the innocent festivity of their happy votaries: behind them is a limb of the Zodiac, with the signs Leo, Virgo, and Libra, which mark the season of the year.

THIRD PICTURE.—“THE VICTORS AT OLYMPIA.”

In this superb picture, the artist has happily chosen that point of time when the victors in the several games are passing in procession before the hellanodics, or judges, where they are crowned with olive in the presence of all the Grecians. At the right-hand corner of the piece, the three judges are seated on a throne, ornamented with medallions of Solon, Lycurgus, and other legislators, and with trophies of the victories of Salamis, Marathon, and Thermopylæ. Near the foot of the throne is a table, at which the scribe appears writing in the Olympic records of noble deeds, the name, family, and country of the conqueror; near this table, a victor in the foot-race, having already received a branch of palm, which he holds in his hand, is crowned by an inferior hellanodic; next him is a foot-racer, who ran armed with a helmet, spear, and shield. Close following is seen a manly group, formed of two athletic figures bearing on their shoulders their aged father; one of these represents a pancratiast, the other the victor at the cestus. The old man is Diagoras, of Rhodes, who, having in his youth been celebrated for his victories in the games, has, in his advanced age, the additional felicity of enjoying the fruits of the virtuous education he had given his sons, amidst the acclamations of the people of Greece, some of whom are strewing flowers around the old man's head, while one of his friends is grasping his right-hand, and supposed to be making the celebrated speech recorded on this occasion, “Now, Diagoras, die, for thou canst not be made a god.” The climax of this domestic felicity is well pointed out by a child holding the arm of one of the victors, and looking up with joy in his countenance at the honours conferred on his grandfather. Near this beautiful group are seen a number of persons, the chief of whom represents Pericles speaking to Cymon. Socrates, Euripides, and Sophocles, are earnestly attending to what is said by Pericles, whilst the malignant buffoon Aristophanes is ridiculously laughing, and pointing to the deformity of the cranium of the speaker, which was unusually long. The painter has, in the

person of Pericles, introduced the likeness of the late Earl of Chatham. Next appears, in the front of the picture, a horse-racer; and close to him, a chariot drawn by four horses, on which is represented, in basso-relievo, the triumph of Minerva over Neptune, emblematical of the advantages of peace. In the chariot is Hiero, of Syracuse; and round the chariot are several persons with musical instruments, accompanied by many youths, forming a chorus, which is led by Pindar singing one of his odes, which he accompanies with his lyre.

As at one end of the picture there is represented a statue of Minerva, so at the other is that of Hercules trampling on Envy, which are comprehensive exemplars of that strength of body and strength of mind, which were the great objects of Grecian education. Sitting on the base of the statue of Hercules, the artist has introduced his own portrait, in the character of Timanthes, holding in his hand a picture of the Cyclops and Satyrs, as related by ancient writers.

Behind the stadium, at a distance, is a view of the beautiful Grecian temple of Jupiter Olympus, in the Atlantis, the town of Elis, and the river Alpheus, as truly characteristic of the spot on which the ceremony that forms the subject of the picture may be supposed to have been performed.

The procession approaching the distant temple with a sacrifice, leads the mind to contemplate the numberless blessings which society derives, and can only derive, from the exercise of religious worship, and the happy opportunity it affords on such solemn occasions, of pacifying the minds of a belligerent people so composed as were the different states of Greece.

FOURTH PICTURE.—THE THAMES.

The practice of personifying rivers, and representing them by a genius adapted to their peculiar circumstances, is as ancient as the arts of painting and sculpture; and in conformity to this practice the ingenious artist has in this picture represented the Thames of a venerable, majestic, and gracious aspect, sitting on the waters in a triumphant car, steering himself with one hand, and holding in the other the mariner's compass, by the use of which modern navigation connects places the most remote, and has arrived at a certainty, importance, and magnitude, unknown to the ancient world. The car is borne along by our great navigators, Sir Francis Drake, Sir Walter Raleigh, Sebastian Cabot, and the late Captain Cook; in the front of the car, and apparently in the action of meeting it, are four figures, representing Europe, Asia, Africa, and America, ready to lay their several productions in the lap of the Thames.

Sir John Denham, in his celebrated eulogium on this river, has expressed this circumstance very happily:—

"Nor are his blessings to his banks confin'd,
But free and common, as the sea or wind,
When he, to boast, or to disperse his stores,
Full of the tribute of his grateful shores,
Visits the world, and, in his flying tow'rs,
Brings home to us, and makes both Indies ours;
Finds wealth where 'tis, bestows it where it wants;
Cities in deserts, woods in cities plants,
So that to us no thing, no place is strange,
While his fair bosom is the world's exchange."

The supplicating action of the poor negro slave, or, more properly, of enslaved Africa, the cord round his neck, the tear on his cheek, the iron manacles, and attached heavy chains on his wrists, with his hands clasped and stretched out for mercy, denote the agony of his soul, and the feelings of the artist thus expressed before the abolition of slavery became an object of public investigation.

Over head is Mercury, the emblem of Commerce, summoning the nations together; and following the car are Nereids carrying several articles of the principal manufactures of Great Britain. The sportive appearance of some of these Nereids, gives a variety to the picture, and is intended to show that an extensive commerce is sometimes found subversive of the foundation of virtue.

In this scene of triumph and joy, the artist has introduced music, and, for this reason, has placed among the sea-nymphs his friend Dr. Burney, whose abilities in that line are universally acknowledged.

In the distance is a view of the chalky cliffs on the English coast, with ships sailing, highly characteristic of the commerce of this country, which the picture is intended to record. In the end of this picture, next the chimney, there is a naval pillar, mausoleum, observatory, and lighthouse, all of which are comprehended in the same structure, and which, by a flight of imagination no less classically happy than singularly original, the Tritons or sea-gods themselves appear to have erected as a compliment to the first naval power. In this important object, so ingeniously produced by the sea-gods, we have obtained the happy concurrence and union of so many important desiderata in that opportunity of convenient inspection of all the sculptured commemorations, the want of which has been so deeply regretted by all who have seen the Trajan and Antonine columns, and other celebrated remains of antiquity.

FIFTH PICTURE.—THE SOCIETY.

This picture represents the distribution of the rewards in the Society founded for the noble purpose of introducing and perfecting the useful arts in this country, for which we were formerly obliged to have recourse to other nations. Not far advanced from the left side of the picture stands the late Lord Romney, then President of the Society, habited, as all the other noblemen are, in the robes of his dignity; near the President stands his Royal Highness the Prince of Wales; and sitting in the corner of the picture, holding in his hand the instrument of the institution, is Mr. William Shipley, "whose public spirit gave rise to this Society."* One of the farmers, who are producing specimens of grain to the President, is Arthur Young, Esq.; near him is Mr. More, the late Secretary, distinguishable by the pen he holds. On the right-hand of the first Lord Romney stands the late Lord Romney, V.P., and on the left, the late Owen Salusbury Breton, Esq., V.P. Towards the centre of the picture is seen that distinguished example of female excellence, Mrs. Montague, who long honoured the Society with her name and subscription. Her example has been imitated by the late Duchess of Northumberland, and other ladies, and probably will be followed by greater numbers, when it is more generally known that the fair sex may become members of this institution, and that many of its objects are peculiarly adapted to female accomplishments. Mrs. Montague appears here recommending the ingenuity and industry of a young female, whose work she is producing. Near her are placed the late Duchess of Northumberland, the present Duke of Northumberland, V.P., the late Joshua Steel, Esq., V.P., the late Sir George Savile, Bart., V.P., Dr. Hurd, Bishop of Worcester, Soame Jenyns, and James Harris, Esqrs., and the two Duchesses of Rutland and Devonshire; between these ladies the late Dr. Samuel Johnson seems pointing out this example of Mrs. Montague to their graces' attention and imitation.

Further advanced is his grace the late Duke of Richmond, V.P., and near him the late Edmund Burke, Esq.; still nearer the right-hand side of the picture is the late Edward Hooper, Esq., V.P., and the late Keane Fitzgerald, Esq., V.P. His grace the late Duke of Northumberland, V.P., the Earl of Radnor, V.P., William Locke, Esq., and Dr. Hunter, are examining some drawings by a youth, to whom a premium has been adjudged; behind him is another youth, in whose countenance the dejection he feels at being disappointed in his expectation of a reward, is finely expressed. Near the right-side of the piece are seen the late Lord Viscount Folkestone, first President of the Society, his son, the late Earl Radnor, V.P., and Dr. Stephen Hales, V.P. In the back-ground appear part of the water-front of Somerset-house, St.

* These words are engraved on the gold medal voted to Mr. Shipley in the year 1768.

Paul's, and other objects in the vicinity and view of this Society as instituted at London. And as a very large part of the rewards bestowed by the Society have been distributed to promote the polite arts of painting and sculpture, the artist has also most judiciously introduced a picture and statue; the subject of the picture is the Fall of Lucifer, designed by Mr. Barry when the Royal Academy had selected six of the members to paint pictures for St. Paul's Cathedral; the statue is that of the Grecian Mother Dying, and in those moments attentive only to the safety of her child. In the corners of the picture are represented many articles which have been invented or improved by the encouragement of this Society. In the lower corner of this picture, next the chimney, are introduced two large models intended by Mr. Barry as improvements of medals and coins.

SIXTH PICTURE. — "ELYSIUM, OR THE STATE OF FINAL RETRIBUTION."

In this sublime picture, which occupies the whole length of the room, the artist has, with wonderful sagacity, and without any of those anachronisms which tarnish the lustre of other very celebrated performances, brought together those great and good men of all ages and nations, who have acted as cultivators and benefactors of mankind. This picture is separated from that of the Society distributing its rewards, by palm trees, near which, on a pedestal, sits a pelican feeding its young with its own blood; a happy type of those personages represented in the picture, who had worn themselves out in the service of mankind. Behind the palms, near the top of the picture, are indistinctly seen, as immersed and lost in the great blaze of light, cherubim veiled with their wings, in the act of adoration, and offering incense to that invisible and incomprehensible power, which is above them and out of the picture, from whence the light and glory proceed, which are diffused over the whole piece. By thus introducing the idea of the Divine Essence, by effect, rather than by form, the absurdity committed by many painters is happily avoided, and the mind of every intelligent spectator is filled with awe and reverence. The groups of female figures, which appear at a further distance absorbed in glory, are those characters of female excellence whose social conduct, benevolence, affectionate friendship, and regular discharge of domestic duties, soften the cares of human life, and diffuse happiness around them. In the more advanced part, just bordering on this blaze of light (where the female figures are almost absorbed), is introduced a group of poor native West Indian females in the act of adoration, preceded by angels burning incense, and followed by their good bishop; his face, partly concealed by that energetic hand which holds his crozier or pastoral staff, may, notwithstanding, by the word "Chiapa" inscribed on the front of his mitre, be identified with the glorious Friar Bartholomeo de las Casas, bishop of that place. This matter of friendly intercourse, continued beyond life, is pushed still further in the more advanced part of the same group by the male adoring Americans, and some Dominican friars, where the very graceful incident occurs of one of these Dominicans directing the attention of an astonished Carib to some circumstances of that beatitude, the enjoyment of which he had promised to his Carib friend. The first group below on the left-hand, in this picture, consists of Roger Bacon, Archimedes, Descartes, and Thales; behind them stands Sir Francis Bacon, Copernicus, Galileo, and Sir Isaac Newton, regarding with awe and admiration a Solar System, which two angels are unveiling and explaining to them; near the inferior angel, who is holding the veil, is Columbus, with a chart of his voyage; and close to him, Epaminondas with his shield, Socrates, Cato the younger, the elder Brutus, and Sir Thomas More; a Sextumvirate, to which, Swift says, all ages have not been able to add a seventh. Behind Marcus Brutus is William Molyneux, holding his book of the Case of Ireland; near Columbus are Lord

Shaftesbury, John Locke, Zeno, Aristotle, and Plato; and in the opening between this group and the next are Dr. William Harvey, the discoverer of the circulation of the blood, and the Honourable Robert Boyle. The next group are legislators, where King Alfred the Great is leaning on the shoulder of William Penn, who is showing his tolerant, pacific code of equal laws to Lycurgus; standing round them are Minos, Trajan, Antoninus, Peter the Great of Russia, Edward the Black Prince, Henry the Fourth of France, and Andrea Doria of Genoa. Here, too, are introduced those patrons of genius, Lorenzo de Medici, Louis the Fourteenth, Alexander the Great, Charles the First, Colbert, Leo the Tenth, Francis the First, the Earl of Arundel, and the illustrious Monk Cassiodorus, no less admirable and exemplary as the Secretary of State than as the friar in his convent at Viviers, the plan of which he holds in his hand. Just before this group, on the rocks which separate Elysium from the Infernal Regions are placed the angelic guards (see Milton, book iv., ver. 549); and in the most advanced part an archangel, weighing attentively the virtues and vices of mankind, whose raised hand and expressive countenance denote great concern at the preponderancy of evil; behind this figure is another angel, explaining to Pascal and Bishop Butler the analogy between natural and revealed religion. The figure behind Pascal and Butler, with his arm stretched out and advancing with so much energy, is that ornament of our latter ages, the graceful, the sublime Bossuet, Bishop of Meaux; the uniting tendency of the paper he holds in that hand, resting on the shoulder of Origen, would well comport with those pacific views of the amiable Grotius for healing those discordant evils which are sapping the foundation of Christianity amongst the nations of Europe, where in other respects it would be, and even is, so happily and so well established. See page 61 of Mr. Barry's printed letter to the Society for the Encouragement of Arts, &c., dated Feb. 1793.

Behind Francis the First and Lord Arundel, are Hugo Grotius, Father Paul, and Pope Adrian.

Towards the top of the picture, and near the centre, sits Homer; on his right-hand Milton; next him, Shakespeare, Spenser, Chaucer, and Sappho. Behind Sappho sits Alcæus, who is talking with Ossian; near him are Menander, Molière, Congreve, Brahma, Confucius, Mango Capac, &c. Next Homer, on the other side, is the Archbishop of Cambray, with Virgil leaning on his shoulder; and near them Tasso, Ariosto, and Dante. Behind Dante, Petrarch, Laura, Giovanni, and Boccaccio. In the second range of figures, over Edward the Black Prince and Peter the Great, are Swift, Erasmus, Cervantes; near them Pope, Dryden, Addison, Richardson, Mendelssohn, and Hogarth. Behind Dryden and Pope, are Sterne, Gray, Goldsmith, Thomson, and Fielding; and near Richardson, Inigo Jones, Sir Christopher Wren, Sir Joshua Reynolds, and Vandyke. Next Vandyke is Rubens, with his hand on the shoulder of Le Sueur; and behind him is Le Brun: next to these are Giulio Romano, Dominichino, and Annibal Carracci, who are in conversation with Phidias, behind whom is Giles Hussey. Nicholas Poussin and the Sicyonian maid are near them, with Callimachus and Pamphilus; near Apelles is Correggio; behind Raphael stand Michael Angelo, and Leonardo da Vinci; and behind them, Ghiberti, Donatello, Massaccio, Brunaleschi, Albert Durer, Giotto, and Cimabue.

In the top of this part of the picture, the painter has happily glanced at what is called by astronomers the system of systems, where the fixed stars, considered as so many suns, each with his several planets, are revolving round the Great Cause of all things; and representing everything as effected by intelligence, has shown each system carried along in its revolution by an angel. Though only a small portion of this circle can be seen, yet enough is shown to manifest the sublimity of the idea.

In the other corner of the picture the artist has repre-

sented Tartarus, where, among cataracts of fire and clouds of smoke, two large hands are seen; one of them holding a fire-fork, the other pulling down a number of figures bound together by serpents, representing War, Gluttony, Extravagance, Detraction, Parsimony, and Ambition; and floating down the fiery gulph, are Tyranny, Hypocrisy, and Cruelty, with their proper attributes; the whole of this excellent picture proving in the most forcible manner, the truth of that great maxim, which has been already quoted, but cannot be too often inculcated:—"That the attainment of man's true rank in the creation, and his present and future happiness, individual as well as public, depend on the cultivation and proper direction of the human faculties."

In addition to the pictures described above, there are two other pictures in the Great Room; one by Mr. Horsley, R.A., representing Her Majesty surrounded by the Royal Family at Windsor Castle; the other by Mr. Cope, R.A., representing His Royal Highness the Prince Consort with his hand upon the charter of the Great Exhibition of 1851. It will be in the recollection of members, that these pictures (with a bust of the Prince Consort now in the Vestibule) were presented to the Society by subscription amongst its members, as a memorial of His Royal Highness, who was for eighteen years President of the Society.

When the subject of this memorial was under discussion, it was suggested that the completion of the decoration of the Society's Great Room, as designed by Barry, would (in addition to the bust above referred to), be a suitable form for the memorial.

In Barry's original design the spaces at the end of the room, where the portraits of Lords Romney and Folkestone were formerly placed, were to have been filled—one with a portrait of George the Third, and the other with a group representing Queen Charlotte superintending the education of her family at Windsor Castle. Barry did not live to complete these pictures, but his intentions were accurately recorded in his own etchings. The spaces intended to have been thus occupied have now been filled with the two pictures just described.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

The thirty-eighth meeting will commence in Norwich on Wednesday, the 19th of August next, under the presidency of Joseph Dalton Hooker, Esq., F.R.S., D.C.L., &c., Curator of the Royal Gardens at Kew.

The fact that Norwich has never before been visited by the British Association, the character of its manufactures, the highly interesting geological features and archaeological remains in the surrounding district, with a hearty desire worthily to receive the Association, will combine, it is hoped, to make the meeting thoroughly interesting and successful.

Through the liberality of various public bodies and private individuals, the Committee have obtained excellent accommodation for the various meetings of the Association; a subscription has been raised to defray local expenses; the offers of private hospitality have been numerous; special invitations have been given to the corresponding members and a large number of distinguished foreigners; and every effort will be made to receive and heartily entertain visitors to the meeting.

Those who propose to be present at the meeting should communicate with Messrs. Donald Dalrymple, Hinds Howell, and Joseph Crompton, Honorary Local Secretaries, in order that they may be supplied with a railway pass ticket; and also that accommodation may be obtained for them.

The Reception-room, at Masonic Hall, Theatre-street, Norwich, will be open on Monday, August 17, at 12 o'clock, for the sale of tickets, and for supplying information.

Communications intended for presentation to the sections should be forwarded in letters, before August 15th, addressed either to G. Griffith, Esq., Assistant General Secretary, 1, Woodside, Harrow, or to one of the local secretaries at Norwich, and should be accompanied by a statement whether the author will be present, and on what day, so that the business of the Association may be satisfactorily arranged.

The opening address will be delivered in the Drill-hall, on Wednesday evening, the 19th of August, at 8 o'clock, by Joseph Hooker, Esq., F.R.S., D.C.L., &c., President Elect.

Soirées will be held in St. Andrew's Hall on the evenings of Thursday, the 20th, and Tuesday, the 25th of August.

Evening lectures will be delivered in the Drill-hall on Friday, the 21st, and Monday, the 24th of August, at half-past eight o'clock.

Various excursions (geological, archæological, and ethnological) have been arranged to take place on Thursday, the 27th of August, to Cromer and its district, to Hunstanton, to Holkham, Castle Acre, Diss, Hoxne, Thetford, &c., full details of which, with times of trains, will be published in due course. Minor excursions, within a short distance of Norwich, are in course of arrangement.

AGRICULTURAL EDUCATION IN FRANCE.

Considerable attention has been given of late in France to the education of the rural population, and the Minister of Public Instruction has recently taken a step of some importance in the same direction as regards girls; he has commissioned Madame la Baronne Hérald de Pages, a lady who has given great attention to agricultural and philanthropic instruction, to inspect all the girls' schools in France in which agriculture is added to the ordinary studies of primary schools. Madame de Pages will commence her inspection with Bordeaux, and afterwards continue her labours throughout the South of France, the Vosges, and Alsace. Reports have shown how terribly wanting in the principles and practice of household economy are the women and girls of the agricultural districts of England, and there is little doubt that their sisters of France are in a condition very little (if any) superior, and the visits of a well-informed lady cannot fail to produce a good effect.

In the same spirit M. Malgras, academical inspector of Epinal, has issued a circular to the schoolmasters of the Vosges, containing practical hints for the guidance of the latter. The Inspector recognizes the facts of the introduction of agricultural lessons in many of the schools, and adds that the method should be systematised, account being always taken of the special agricultural character of each locality. He impresses upon the teachers of the schools that lessons are not alone sufficient; that the pupils should be taken to see the best-kept farms in the district; be made to study the various kinds of soil and their products, and visit the stables, cattle-houses, fields, and vineyards of those who have received medals for their good farming or management. The schoolmasters are especially enjoined to make their own gardens practical schools of instruction. The Inspector requires, moreover, that on or before a given day each schoolmaster shall make a return of the means which are at his disposal, or of which he proposes to avail himself, for giving instruction in agriculture and horticulture. The schoolmasters are instructed to make (or cause their pupils to make) a plan of the garden or land placed at their disposal, on a scale of 1 in 100 or 1 in 200, according to the extent of the plot, indicating the boundaries, walks, beds, trees, and other objects, such plans to be on paper of a given size, and to bear the name of the commune, the name and age of the draughtsman, and an explanatory inscription. These plans are to be sent in by a given date, in order to be exhibited at the Scholastic Show of the Department.

The Prefect of the Department is instructed to confer with agricultural, horticultural, and other societies, in order that well-drawn plans may be rewarded with prizes.

Fine Arts.

STATUE TO THE LATE PAINTER, INGRES.—A competitive exhibition of models for a statue of the late painter, Ingres, is about to take place at the Institut of France. More than thirty models have arrived, some from Rome and other parts of Italy, and some from Athens, but the majority from the ateliers of Parisian sculptors. M. Ingres was not a favourable subject for sculpture, but the estimation in which he was held will probably have induced some clever sculptors to compete for the execution of the statue to be raised to his memory.

DISCOVERY OF ANCIENT PAINTING AT MILAN.—A fine fresco has just been discovered in the church of Santa Maria del Giardino, which is now being demolished. This fresco, which is in a good state of preservation, represents St. Antonio of Padua, and is attributed to the painter Suardi.

EXCAVATIONS AT POMPEII.—The excavations, which are being carried on with great activity just now at Pompeii, have brought to light two very interesting specimens of ancient art, namely, two fresco portraits, situated under a portico of the Via Stabiana. They are believed to be the master and mistress of the house. The man wears the toga of magistrate, and the woman is represented in the attitude of a person reflecting about what she is to write, for she has a style in her right hand and is about to carry it to her lips, while in her left she holds the writing tablets. Both the portraits are well executed.

NEW ROYAL ACADEMICIAN.—At the meeting of members and associates of the Royal Academy, on Tuesday, the 30th ult., for the election of a member in the place of Baron Marochetti, deceased, Mr. F. Leighton was chosen by a large majority. Mr. Leighton was elected A.R.A. in July, 1864.

COLLECTION OF ENGRAVED PORTRAITS.—The authorities of the South Kensington Museum are forming a collection of engraved portraits, and a considerable number of those which have already been obtained are now on view on the upper floor of the national portrait exhibition at Kensington.

Manufactures.

PRODUCTION OF SILK IN SYRIA.—According to the report of the Italian Consul at Beyrout, the total production of silk in Syria, including the province of Aleppo and the adjacent island of Cyprus, amounted, in 1867, to 1,744,000 kilos. of cocoons. The highest price paid was 6 fr. 65 c. per kilo., and the lowest 4 fr. 20 c. The quantity of silk obtained from the cocoons is also very variable, depending almost entirely on the mode of winding. Treating the cocoons in the native manner, only about a kilogramme of silk is obtained from 8 kilos. of cocoons, whilst, on the other hand, 2 kilos. of silk are obtained from 10 to 12 kilos. of cocoons when the operation is conducted in the European manner. The total production of silk may be estimated at 149,881 kilos., of the value of 14,086,035 francs. The greatest part, viz., 125,000 kilos., was exported to France. The report observes that the grains (eggs) of Candia and Egypt succeed best in the plains, whilst the Chinese and Japanese grains gave the best results in the hills.

GLASS CUTTING.—The *Athenæum* says that a new method of cutting, or rather dividing, glass has been recently invented in France, and is practised in the large establishment of the Glass Company of Baccarat. A jet of highly heated air is directed from a tube on the vase or other object to be cut, which, while made to

revolve on its axis, is brought close to the nozzle of the tube. The object being then cooled suddenly, the glass divides at the place operated on with extreme accuracy.

FLOUR MILLS IN ITALY.—The flour mills in Italy are chiefly driven by water-power. According to the latest statistics the total number of these mills is 52,846, containing 78,813 pairs of stones. Taking the total population of Italy at 24,255,488 persons, there is one mill to every 461 inhabitants, or a pair of stones to every 307 persons. In Northern Italy, that is to say, Piedmont, Lombardy, and the Venetian provinces, composed of 5,277 communes, with 9,717,113 inhabitants, there are 29,308 mills and 43,350 pairs of stones. In Central Italy, which comprises Everilda, Umbria, the Marches and Tuscany, the number of mills is 8,373, with 17,689 pairs of stones to 1,071 communes and 6,368,993 inhabitants. In the Neapolitan provinces and Sicily, with 2,214 communes and 9,179,322 inhabitants, there are 14,687 mills and 17,774 pairs of stones. Of the 68 provinces in Italy, that which contains the greatest number is Cagliari, 10,016; next comes the province of Sassari, with 3,647 mills; then Lecce, with 1866; Genoa, 1721; Turin, 1588; Rovigo, 1,348; Novara, 1,329; Florence, 1,309; Potenza, 1,241. The provinces which contain the fewest number of mills are Ravenna, with 95, and Livorno, 76. As regards the number of pairs of stones, in the province of Cagliari there is the greatest number, 10,422; then Sassari, 3,760; Turin, 3,267; Florence, 3,012; Genoa, 2,940; Novara, 2,237. The least number are in the province of Porto Maurizio, 288; Ascoli Piceno, 284; Ravenna, 251; Caltanissetta, 235; Mantua, 232; and Livorno, 99. Of late years several mills driven by steam power have been built. At Venice there is one of these establishments which produces about 255 hectolitres per day. In Calabria there are two mills driven by steam-power. At Bari one, producing 200 hectolitres per day. At Ferrara there is another. In Tuscany there are several mills driven by steam, one at Leghorn, another at Pontedera, and three at Calci, near Pisa, with 17 pairs of millstones. The number of mills on the American plan is very limited in Italy. In the province of Verona there are 8 mills on this plan, of which 4 have 22 horse-power, and grind about 25,000 hectolitres of grain a year. At Ancona there is also a mill on this plan. In Piedmont the same system is used on a large scale at Collegno, near Turin, with 24 pairs of stones, and grind daily 500 hectolitres of grain. These mills produce daily 300 quintals of flour. Another establishment, near Settimo Torinese, with 6 pairs of stones, grinds upwards of 250 quintals of corn per day. Another mill, at Sampierdarena, driven by water-power, produces 20,000 quintals of flour yearly. The production of wheat in Italy amounts to 34,397,168 hectolitres; oats, maize, &c., to 19,152,092 hectolitres. Taking the imports at 4,150,000 hectolitres, the total amount of corn ground averages yearly 57,700,000 hectolitres. Besides the flour which is produced in Italy about 79,000 quintals of foreign flour is imported. The exports do not amount to more than half the imports. The following are the exports and imports from 1861 to 1865:—

	IMPORTS.		EXPORTS.	
	Quantity.	Value.	Quantity.	Value.
	Quintals.	Francs.	Quintals.	Francs.
1861....	49,707	1,889,000	42,253	1,606,000.
1862....	79,747	3,030,000	28,305	1,077,000
1863....	90,287	4,431,000	55,045	2,167,000
1864....	84,603	3,235,000	41,907	1,593,000
1865....	89,982	3,416,000	48,325	1,836,000
Average.	78 845	3,200,000	43.147	1,656,000

The principal exports of flour from Italy are to England, France, and Switzerland.

Commerce.

OCEAN TELEGRAPHY.—A meeting was held at the City Terminus Hotel, on the 3rd inst., of gentlemen interested in ocean telegraphy, to hear Capt. Rowett describe his patent for hempen cables, and his progress in connection with them. Capt. Rowett received a concession from the Emperor of the French for an Atlantic cable. He claims under his patent the modifications adopted by the Atlantic Telegraph Company. He now proposes to adopt the simple sheathing of hemp, manilla, or coir, relying on the durability of hemp as tested in the case of the Atlantic cable, and simplifying the manufacture and laying, resulting consequently in a very large reduction of expense. He suppresses all wires or metallic armour in the sheathing, considering the hemp sufficiently durable for protection, this becoming hard and heavy when wetted. He avoids the complications and expense of the present paying-out machinery. Under such circumstances he assumes a very large reduction and consequent economy in laying cables to India, Java, China, Australia, America, &c.

SEA FISHERIES.—The Dieppe fishermen have just completed their mackerel fishing for the season, which has proved more than usually successful, the fish being remarkably plentiful, especially during the last week or two of the season; eight Dieppe boats, making a total of twenty-one voyages, brought in more than four hundred thousand fish, all of which were salted on board, the trade for salt mackerel being apparently on the increase. The following is a return of the produce of the boats of other ports:—Boulogne, eight boats, in eleven trips, obtained three hundred thousand fish; and two boats belonging to Courseulles, making only three voyages, 56,846. The take of the fishermen of these three ports has, therefore, amounted to nearly eight hundred thousand fish of one kind only.

PRODUCTION OF SHIPS' BISCUITS IN ITALY.—The production of ships' biscuits in Liguria and at Leghorn forms now an important branch of trade. Formerly this article was imported from other countries, but of late years this industry has so increased that the exports exceed the imports by upwards of 600,000 frs. (£24,000). The Russian and Greek shipping are those which principally use the Italian biscuits. The following are the exports and imports of this article from 1862 to 1865:—

	IMPORTS.		EXPORTS.	
	Quantity.	Value.	Quantity.	Value.
	quintals.	frs.	quintals.	frs.
1862....	396	24,000	4,172	250,000
1863....	216	13,000	21,547	1,293,000
1864....	209	13,000	11,295	677,000
1865....	311	19,000	4,881	293,000
Average	283	17,000	10,474	628,000

COMMERCE OF VENICE.—The following is the value of the merchandise imported and exported from Venice during the last five years:—

Imports.		Francs.
1863.....	123,285,012	
1864.....	117,431,239	
1865.....	110,796,341	
1866.....	98,739,457	
1867.....	128,668,460	
Exports.		Francs.
1863.....	74,257,147	
1864.....	77,049,854	
1865.....	71,009,059	
1866.....	68,321,674	
1867.....	101,565,424	

From this it will be seen that, although great outcries are being made as to the stagnation of trade at Venice, there is no reason to complain, and that it has increased considerably since its annexation to the kingdom of Italy.

A SULTAN'S ORDER.—The Sultan has given a splendid commission to the famous house of Froment-Meurice and Marnyac, of Paris, consisting of a series of massive pieces of plate for a dinner table. The centre piece will stand more than six feet high, and will represent a Moorish palace, in the style of the Alhambra; on each side of this central ornament are to stand two large fountains; two triumphal arches occupy positions at some distance, and several smaller pieces, *bouts de table*, as they are called, to hold flowers or fruit, or both, complete the series, or *surtout de table*. The whole are to be of massive silver, and, of course, all in the same style. The Sultan has at the same time ordered the table on which the grand specimen of the silversmiths' art is to stand, together with complete services of china, glass, and cutlery; the table, it is said, is to measure more than 140 feet in length, and sixteen feet in breadth. The price of the silver plate ordered of MM. Froment-Meurice and Marnyac is reported to be four millions of francs, or £160,000.

IMPORTATIONS OF WHEAT.—The *Produce Markets' Review* says:—From official returns it appears that our total importations of wheat during the first quarter of the present year were 8,465,521 cwts., an increase of 40 per cent. over those of the same quarter of 1866. The chief supply continues to be derived from Russia, although that country has not maintained its relative positions in our market; since in the first quarter of last year we derived from her about 44 per cent. of our entire importations, while on the present occasion her proportion has only been 27 per cent. From Prussia, likewise, the quantity has been only about two-thirds that of last year. The great increase has been in the instances of Egypt and the United States. Egypt, which last year sent us only 10,954 cwts., has this year contributed 1,241,382 cwts., or about 15 per cent. of our entire supply; while the United States have more than trebled their consignments, the total arrivals thence having been 1,868,119 cwts., or about 22 per cent. of our entire supply. Of grain other than wheat, our importations have in every case, with the important exception of Indian corn, been less than in the first quarter of last year, the diminution having been 40 per cent. in barley, 23 per cent. in oats, 30 per cent. in peas, and 7 per cent. in beans. Of Indian corn, the arrivals have been 2,302,287 cwts., an excess of 71 per cent.

Colonies.

PROGRESS IN AUCKLAND, NEW ZEALAND.—The census returns show an increase in the population of the province of 6,189 since December, 1864, the total number being now 48,321. The population of the city of Auckland is now 17,606, against 17,145 in 1864. The number in the city would have shown a greater increase but for the recent rush to the Thames gold fields. Since 1864, 78,846 acres of land have been fenced in, and 42,481 brought into cultivation, the Government returns now showing that 207,994 acres have been fenced in, and that there are now 130,037 acres of land under crop. There is also a marked increase in the stock of the colony, especially in the number of sheep, which in three years have more than doubled, there having been in 1867 172,030 head of sheep, against 73,151 in 1864.

COAL IN NELSON, NEW ZEALAND.—The coal seams at the Grey River were discovered about twenty-two years ago, but beyond the fact of their existence nothing was really known about them for thirteen years afterwards. In the year 1860 surveyors were appointed by the Government to examine and report upon the coalbeds in the south-west districts, and then was the colony

first made acquainted with its great mineral wealth. No attempt, however, was made to work the coal at the Grey River until gold was discovered near the river, when, about three years ago, a party of six working men, by permission of the Government, opened the mine, and with very inadequate means supplied with coal the steamers visiting the Grey River. Subsequently an offer was made to the Government by parties who stated they had capital to work the coal, and place it within the reach of shipping, at the lowest possible cost; they were, after due inquiry, accepted as lessees, but the working of the mine has, so far, been a disappointment to all who desire to see New Zealand supply itself with coal. The only means of cheapening the cost of transporting the coal from the Grey River to the port of Nelson is by the construction of a railway, which, it is hoped, will shortly be commenced. It is calculated that by means of a railway the coal could be delivered at the port at about 9s. per ton, whilst at present, owing to the difficulties attendant on its transport, the price varies from 25s. to 30s. per ton. There seems no doubt that a large demand for the coal would spring up at Melbourne and other Australian ports.

SILVER IN VICTORIA.—A discovery of silver ore on the surface has been made in the neighbourhood of Smythdale; and a license or lease for an extensive area of land, to be used for mining purposes, has been applied for. A fine sample of mixed metal—gold and silver—from the St. Armand Mine, now known as the Pioneer, has been shown in Melbourne.

IMMIGRATION IN SOUTH AUSTRALIA.—A South Australian paper says:—"The number of immigrants introduced at the public expense during the ten years preceding 1867 has been 23,795, whilst the nett increase of population from foreign sources, in other words, the excess of the total immigration over the total emigration in that period, was 21,970, showing a loss of 1,825 immigrants; and as the actual cost of every immigrant landed at Port Adelaide has been £17 each, the money-loss to the colony is fully £31,000. The total outlay of the Immigration Department of the Government between 1857 and 1867 was £398,106."

LABOUR IN QUEENSLAND.—It is now being discovered that many of the anticipations which were indulged in as to the benefits to be derived from the importation of labourers from the South Sea Islands were without foundation. The men are neither so industrious nor tractable as represented, their most distinguished characteristics being to have an unlimited capacity for eating and sleeping, and an inclination either to obtain raised wages or to run away. It is more than probable that in the southern part of the colony the employment of these men will be confined to a few plantations, where they can be worked in gangs.

CLOTH MANUFACTURE IN VICTORIA.—In connection with the manufactures of Victoria, it is satisfactory to report that the first cloth factory established in Victoria is now in full operation near Geelong, and is capable of turning out about 1,500 yards of cloth per week, the manufacture of which will consume about 1,820 lbs. of washed, or 2,880 lbs. of greasy wool. Between forty and fifty persons are employed, chiefly women and girls, the former earning 20s., and the latter about 7s. a-week.

Notes.

MONT CENIS RAILWAY.—The Fell Railway over the Mont Cenis appears to be working admirably, and to give the utmost satisfaction to those who travel by it, both as regards the saving in time and expense. The prices charged are little more than half those formerly paid by diligence, being 25frs. 1st class, instead of 40frs., the charge for a place in the coupé in the diligence. The 2nd class fare is 22frs., and the 3rd class 18frs., instead of 36frs., which was paid for places in the interior

or banquette of the diligence. The charge for goods has also been reduced from 100frs. to 77frs. per ton of 1,000 kils. by "grande vitesse," and from 60frs. to 40frs. by "petite vitesse." The postal service between Paris and Florence has been accelerated by the opening of this line. Formerly a letter leaving Paris at eight o'clock in the evening arrived at Florence two days afterwards, but so late at night that it was not delivered till the next morning. Thus, letters which left Paris on Monday evening were distributed in Florence on Thursday morning. They now will arrive on Wednesday morning, and be at once delivered, and a gain of a day is effected. It is much to be regretted that other towns in Northern Italy do not enjoy a like advantage, the Alta Italia Railway Company not having thought fit to make any alteration on their line from Turin to Milan and Venice, and letters which arrive in Turin in the evening are not forwarded to Milan and Venice until the next morning, and arrive too late for delivery at Venice that day. Letters from London might equally share the advantages of the new system if the Post-office authorities in Paris did not detain them for twelve hours, and a night service were organised over Mont Cenis.

WATER VELOCIPÈDE.—*Galignani* says:—"An ingenious application of the principle of the velocipede to water-locomotion may now be seen on the Lake of Enguieu, near Paris. The form of this new species of naval construction is that of the twin ship tried some years back on the Thames, the motive power being placed in the middle instead of on each side as in ordinary paddle steamers. A pair of hollow water-tight pontoons, about 12 feet long, 10 inches wide in the thickest part, and tapered to a point at each end, are fastened together about twenty inches apart by transverse bars near the extremities. In the centre is placed the seat, rising about two feet above the water, and supported by iron rods. In the front is the paddlewheel, about three feet in diameter and eight inches broad, provided with sixteen floats, the axle turning on stout iron uprights, and the rotary motion being obtained from cranks worked by the feet. This little vessel is steered by rudders at each of the sterns, and moved by lines. The pontoons being made of thin mahogany planks, the whole construction is very light, and glides along with astonishing rapidity. This water velocipede, having been built as a first experiment, is no doubt susceptible of improvement in some of its details, but the principle may be already pronounced a complete success. The inventor is M. Thierry, an architect, of Paris."

THE MONT CENIS TUNNEL.—During the present year to 30th April, the total advancement made at the Mont Cenis Tunnel has been 421·35 metres, of which 199·50 was at the Italian side, at Bardonnèche, and 221·85 metres at Modane on the French. During the month of April, the total progress made was 109·35 metres, of which 46·40 metres were driven at the Bardonnèche end, and 62·45 metres at Modane. The position of the tunnel up to the 30th April was as follows:—

	Metres.
South end, Bardonnèche	4,924
North end, Modane	3,344
Total length of tunnelling	8,268
Remaining to be driven	3,952
Total length of tunnel	12,220

THE BRINDISI AND ALEXANDRIA ROUTES.—According to the report just published by the Southern Railway Company of Italy, the total number of passengers who passed over this line *en route* for the East during the last ten months of 1867 was 673. Previously to this date there were no returns, as the through service from Paris to Alexandria at reduced rates was not established.

TELEGRAPHIC IMPROVEMENTS IN FRANCE.—The Corps Legislatif has just adapted a bill modifying the charges for telegraphic dispatches in France. From the pro-

mulgation of the new law, the cost of a message of not more than twenty words between any two offices in the same department of France is to be only fifty centimes, (5d.) From the 1st of November, 1869, the price of a single telegram between any two departments in France is to be one franc, and this rate may be forestalled by imperial decree. In either case the fees to increase 50 per cent. for every ten words, in addition to the original twenty. The bill also authorizes the authorities to arrange a system of payments through the medium of the telegraphic service in addition to that of post-office orders. The new scale of prices will doubtless create a large increase in the number of messages, and therefore it is found necessary to lay down several new lines, open extra offices, and make various improvements in the material of the service; the cost of these operations is estimated at 4,021,500 francs (nearly £161,000.) The following are the details of the estimate:—

	Francs.
New lines from Paris to Marseilles and Nice	1,096,500
Line from Paris to Clermont-Ferrand and Nîmes	90,000
Line from Paris to Limoges, Toulouse, and Montpellier	409,000
Line from Paris to Bordeaux and the Spanish frontier	276,000
Line from Lyons to Toulouse and Bor- deaux	102,500
Lines in Brittany	127,500
Lines in Normandy	163,750
Lines in the North	161,250
Lines in the East	345,000
Establishment of underground lines within and around the most important towns	300,000
Establishment of atmospheric tubes for the distribution of dispatches in Paris	500,000
Purchase and fitting up of improved apparatus	200,000
Sundries	250,000
Total	4,021,500

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.—It appears by a circular of the committee that the objects of this Association for the Advancement of Science are very similar to those of the British Association; they are, by periodical and migratory meetings, to promote intercourse between those who are cultivating science in different parts of North America; to give a stronger and more general impulse, and a more systematic direction to scientific research in that country, and to procure for the labours of scientific men increased facilities and a wider usefulness. The seventeenth meeting of the association will be held at Chicago, during the week commencing on Wednesday, August 5th, 1868, at ten o'clock, a.m. It will be the aim of the Local Committee to make the sojourn of the members of the association in Chicago pleasant, as well as profitable in a scientific point of view. The usual local courtesies will be extended to them, both by private citizens and public bodies. Resolutions of invitation, and offers of the use of rooms, libraries, collections, &c., have already been passed by the Academy of Sciences, the Historical Society, the Young Men's Association, the University of Chicago, the Board of Trade, and other bodies. Communications should be addressed to the Local Secretary, at the Academy of Sciences, No. 263, Wabash Avenue, or Post-office Box, 1,430, Chicago, Ill.

THE INVENTOR OF ENVELOPES.—The *Stationer* states that about forty years ago there lived at Brighton a bookseller and stationer of the name of S. K. Brewer, and he used to place in his shop window piles of paper, beginning at the largest up to the then smallest size, 16mo.; but to finish off the pile he cut cards so as to bring them up to a point. Ladies used to go in and ask for that "dear little paper," which induced him to cut paper in

small sizes. Then came the difficulty of the place for address, and the result was he invented the envelope, and had metal plates made for cutting them to shape and sizes. This just pleased the ladies, and orders came to him for the little paper and envelopes from all parts. This at length became such a demand upon his time, that he got Dobbs and Co., of London, to make them for him. Such was the beginning of the envelope trade.

HEALING OF WOUNDS BY LEAD.—The *Journal des Connaissances Médicales* contains a paper by Dr. Burggræve, member of the Academy of Medicine of Belgium, on the new way of dressing wounds by means of a lamina of lead, of the thickness of about half a millimetre, and which, therefore, can be easily bent by the fingers, and thus, by pressure, made to assume the form of the injured part. Once applied, it is fixed by means of strips of adhesive plaster, and once or twice a day irrigations are effected on the limb. The author of the paper states that 165 patients out of 179 treated at the civil hospital at Ghent for workshop or railway accidents, most of which were very serious, were cured without undergoing any operation, the only course followed being the treatment by lead above described. The average duration of the cure was 31 days and a fraction. Only 14, or eight per cent., died, including those who expired a few hours after the accident, and who may consequently be considered as having been mortally wounded. For the last five years not a single operation has taken place by the knife at the Ghent Hospital in the cases alluded to. Nature alone performs the cure; all the surgeon has to do being merely to second her, and avoid the application of irritating substances. Wounds by laceration or crushing are less dangerous in their consequences than those by the knife, the vessels in the former case being contracted, and offering less chance of purulent absorption. About 50 per cent. of operations by the knife end in death, owing to the general weakness induced by loss of blood and by a strict diet. By the lead treatment the patient is not deprived of his limb, and can use it, though in a mutilated state. The lead remains in its place for ten or twelve days, without any other trouble than that of making a current of fresh water pass between the lamina and the flesh, and keeping the limb in a bath. Any person, without being a surgeon, can learn to apply the lead; and this system, therefore, promises to be extremely useful on the field of battle.

HOSPITALS AND ASYLUMS IN FRANCE.—The number of hospitals in France is said to be 337, and of *hospices*, including asylums for the aged, infirm, incurable, orphans, and foundlings, 199, besides 734 establishments which are at once hospitals and asylums, making a total of 1,270, whereas, in 1805, the number was 1,920; this diminution being the result of improved organisation. The average income of these establishments amounted to about 20,000,000frs. at the end of the past century, but at present it is nearly triple that sum. The budget of Paris includes 44,000,000frs. for charitable purposes, of which 9,000,000frs. are devoted to the hospitals, and the remainder to the relief of the indigent; of this latter about one-third is collected by charitable societies, which number more than a hundred. In 1789 the number of persons in asylums was stated at 40,000, but they contain double that number at present, while the sick in the hospitals has risen since the same date from an average of 25,000 to 90,000.

MINERAL OIL AS A DESTROYER OF INSECTS, &c.—Petroleum oil, especially in the crude state, is found in France to be of great value in destroying insects—slugs, ants, caterpillars, and other mischievous creatures. The petroleum is mixed with water, in the proportion of from an ounce to half an ounce to a pint of water in ordinary cases, but when applied to fruit trees or delicate plants the quantity of the oil is still further diminished. A very weak solution, applied to cherry trees with a watering pot, is said to be completely efficacious against the *ver blanc* or larvæ of the cockchafer. A strong

solution, poured into the holes and down walls infested by insects, is said to kill them rapidly. Another application of the solution is to rid dogs and other animals of parasites, but the parts must be rubbed with soap a few minutes after the solution has been applied. An agriculturist in the Aube says that the rats and mice with which his cellar had been infested, all quitted it when some petroleum was stored there, and that his garden was cleared of slugs by watering with the rinsings of petroleum casks.

Correspondence.

THE ELECTRIC TELEGRAPH BILL.—SIR,—I may state, for the information of those particularly interested in the subject of this Bill, that now the chief railway companies have withdrawn their opposition to the Bill, having expressed themselves satisfied with the provisions proposed in their behalf by the Post-office, and that the chief remaining opposition anticipated to it is political. It is yet objected to on the ground of the political patronage which it is supposed it may give to the present Government. As respects new appointments, I have already stated that the effectual preventive is the application of the great principle of open competitive examinations for them. As respects the apprehended exercise of any political influence over the present *employés* of the private companies at the coming elections, I may state that, if the Bill be passed immediately it will not be practicable to bring it into operation, so as to give any possible exercise of such influence—assuming it to be possible at any time—within the next nine months. But of the private companies' *employés*, the greater proportion are boys, women, and young persons, and the office-keepers or persons who might have votes are so few, scattered all over the country in twos and threes, and in numbers so insignificant amidst urban constituencies of many thousands, as to make it not worth the trouble of any party political manager to look after them. A leading electoral agent treats the opposition on this head as absurd. There is other opposition, as might be expected, on the part of directors of railways, and of various private companies concerned in intercommunication, who object to the principle of the measure as affording a precedent for other applications of it. I hope their apprehensions are well founded, and that they may see an early application of it to the Irish railways; and this is an additional public ground for not delaying the passing of the postal measure. The directorates are on the alert, and the public and shareholders should be on the alert too upon the principle. The leading opponent of the measure, Mr. Leeman, the member for York, the deputy chairman of the North Eastern Railway Company, and a director in two others, in his speech in the House of Commons in opposition to the bill, is reported to have stated, that it was based on the principles I had proposed for the reform of our railway system, but which a royal commission had declared to be inapplicable. He should have added the commissioners' qualification, "at present,"—the then present being before the demonstrations in favour of the principle had been afforded by the large railway smashes, which have checked the progress of the country and shaken its manufacturing and commercial prosperity to its foundation. Mr. Leeman, however, did me too much honour in leading the House to suppose that the principle of administrative reform in question rested solely upon my testimony. He should have mentioned that, in the commission, it had the support of a clear and able paper by Sir Rowland Hill, and also of one by Mr. Monsell, in relation to the railways in Ireland, and that both Lord Stanley and Mr. Roebuck declined to vote with Mr. Lowe and the majority of the commissioners. Besides Mr. Galt in

England, the principle has the great authority of the leading Belgian statesman, Charles Rogier, as well as the authority of Moritz Mohl and other leading German statesmen, and has had, beyond any personal authority, the triumphant demonstration of completely successful practice in their respective states, for the contemplation of the English public, and of English shareholders.—I am, &c., EDWIN CHADWICK.

BEWICK'S WORKS.—SIR,—The *Penny Magazine* for July 3, 1841, contained a pretty oval cut, of "The Huntsman and Old Hound," by Bewick, and which was printed originally in an edition of "Gay's Fables," published by T. Saint, of Newcastle, in 1779. For the engraving, Bewick, in 1775, received a premium from the "Society for the Encouragement of Arts and Manufactures." It represents a man on horseback, in the act of whipping the hound, with water in the foreground, and at the edge a large old oak-tree. Several hounds are working, and three horsemen are visible in the background, representing, probably, the master of the hounds and the two whippers-in. The four corners of this woodcut are ornamented with leaves, giving it the appearance of an oblong, $3\frac{1}{2}$ inches long by $2\frac{1}{2}$ inches wide. This cut is interesting as an early specimen of this artist's works. One of his fellow-workmen stated:—"The art of engraving on wood was nearly coeval with that on copper; and for some time after it was invented was practised by several of the most eminent painters as an easy and expeditious method of multiplying copies of their works. Most of the earlier writers of natural history embellished their works with figures, from wood, of plants and animals. Some of these did honour to the artist, but the greatest part of them were rude and inexpressive, and could boast of very little merit. The superior beauty and splendour of copper-plate engravings gradually obtained a decided preference. During the greater part of the 17th and 18th centuries, wooden cuts were of little use but to embellish halfpenny ballads and school-books. It was reserved for Bewick to revive and restore this nearly-forgotten art from the neglected state in which it had been so long suffered to continue. His particular turn of mind led him to observe and to delineate the form and manners of the animal creation. He soon found that the yielding consistence of wood is better fitted to express the ease, freedom, and spirit which ought to characterise portraits of animated beings, than the stubborn surface of a metallic substance. He engraved wooden blocks of all the domestic, and most of the wild British quadrupeds, &c., and these show the hand of a master,—boldness of outline, exactness of attitude, and discrimination of general character, which convey a just and lively idea of each animal. The landscapes, as a background and relief to his figures, and his numerous vignettes, have a similar excellence, a truth and nature which will be admired in proportion as they are more attentively observed and better understood. His embellishment of the poems of Parnel, Goldsmith, and Somerville, form the most extraordinary efforts of the art of engraving upon wood ever produced in any age or country. The accuracy of his drawings and the life and spirit which he imparts to his figures, are of unrivalled excellence." These observations seem to deserve a place in your *Journal*.—I am, &c., CHR. COOKE, Member of the Society of Arts.

London, 4th July.

PARLIAMENTARY REPORTS.

SESSIONAL PRINTED PAPERS.

Delivered on 19th June, 1868.

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| Par. | |
| Numb. | |
| 173. | Bill—Court of Session (Scotland) (amended). |
| 175. | " Local Government Supplemental (No. 6). |
| 176. | " Land Clauses Consolidation Act (1845) Amendment. |
| 177. | " Railway Companies (Ireland) <i>Advances</i> . |
| 326. | Queen Anne's Bounty (1866)—Return. |

Delivered on 20th June, 1868.

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| 179. | Bill—Representation of the People (Ireland) (amended). |
| 252. | Harbours of Refuge—Quarterly Reports. |
| 271. | East India (Home Accounts). |

277. Shannon River—Report and Evidence.
 326. (t.) Queen Anne's Bounty (1867 and 1868)—Account.
 333. House of Lords (Causes)—Return.
 Judicial Reforms in Egypt—Papers.
 Public Petitions—Twenty-seventh Report.
- SESSION 1867.
557. East India (Military and Budget Estimates)—Return.
Delivered on 22nd June, 1868.
304. Chain Cables and Anchors—Return.
 330. Metropolis Gas—Return.
 331. Small Livings—Additional Papers.
Delivered on 23rd June, 1868.
178. Bill—Bank of Bombay.
Delivered on 21th June, 1868.
170. Bill—Sea Fisheries—Lords Amendments (corrected copy).
 181. „ Sale of Poisons and Pharmacy Act Amendment.
 182. „ Renewable Leasehold Conversion (Ireland) Act Extension (amended).
 183. „ Poor Law and Medical Inspectors (Ireland).
 Victoria—Further Correspondence.
Delivered on 25th June, 1868.
180. Bill—Bank Holidays and Bills of Exchange (as amended by the Select Committee).
 185. „ New Zealand (Legislative Council).
 282. Naval Reserve—Report.
 343. East India (Persian Telegraph)—Return.
- SESSION 1867.
559. Navy (Iron Ballast)—Return.
Delivered on 26th June, 1868.
184. Bill—Lunatic Asylums (Ireland) Accounts Audit.
 187. „ University Elections (Voting Papers).
 188. „ Consular Marriages.
 189. „ Municipal Elections (Scotland).
 314. Dockyards and Factories—Return.
 320. Army Reserve—Regulations.
 321. Militia Reserve—Regulations.
 339. New Courts of Justice—Treasury Minute.
 348. Ecclesiastical Titles in Great Britain and Ireland—Lords' Report.
 354. Bank Holidays—Report.
 355. Mr. Eyre (Jamaica)—Letter.
Delivered on 30th June, 1868.
199. Bill—Libel (Ireland).
 345. Income and Property Tax—Return.
 347. Law Costs (Ireland)—Return.
Delivered on 1st July, 1868.
164. Bill—Investment of Trust Funds Supplemental.
 194. „ Clerks of the Peace, &c. (Ireland.)
 200. „ Turnpike Trusts Arrangements.
 201. „ Portpatrick and Belfast and County Down Railway Companies.
 202. „ Colonial Governors Pensions Act Amendment.
 119. (iv.) Trade and Navigation Accounts (1st May, 1868).
 307. Lee River Conservancy Bill—Minutes of Evidence.
Delivered on 2nd July, 1868.
150. Bill—Ecclesiastical Buildings and Glebes (Scotland) (amended).
 203. „ Assignees of Marine Police (amended).
 204. „ Burials (Ireland) (amended).
 205. „ Fairs (Metropolis).
 337. Abyssinian Expedition—Two Despatches from Sir Robert Napier.
 341. East India (Progress and Condition)—Statement.
 344. (A.) Poor Rates and Pauperism—Return (A).
 353. Navy (Beef)—Returns.
 356. Portpatrick and Donaghadee Harbours—Minutes and Correspondence.
 358. Royal Hibernian Military School—Return.
 369. Army Services—Further Correspondence.
 374. Writs of Error—Memorials, &c.

Patents.

From Commissioners of Patents' Journal, July 3.

GRANTS OF PROVISIONAL PROTECTION.

Aërial navigation—1815—A. Crestadoro.
 Aërial navigation—1887—W. E. Newton.
 Baking powder—1870—J. C. Walker.
 Beer, &c., cooling—197—W. Müller and G. Englert.
 Beer, &c., cooling—1965—G. B. Turrell.
 Batters—1936—M. and J. Mackie.
 Boring bits and augers—1835—C. Whitehouse.
 Carriages, &c., apparatus for weighing—1868—W. Betts.
 Chemical product applicable to the electrical pile, &c.—1258—W. E. Gedro.
 Chimney cowl—1704—C. Windhausen and H. Büssing.
 Cloth, figured—1964—D. Mitchell.
 Cop bottoms, machinery for preparing, &c.—1923—J. Anderson.
 Cotton, &c., preparing—1913—J. Lord.
 Door knobs, &c., enamelled cast-iron for—1534—A. D. E. Boucher.
 Drinks, tonic effervescing—1914—E. Fisher.
 Feeding bottles—1917—A. S. Stocker.

Fire-arms, breech-loading—1950—J. S. Benson and J. Von der Poppenburg.
 Fire-arms, &c., breech-loading—1931—W. Richards.
 Fishing apparatus—1806—L. G. Mure.
 Flax, &c., hackling—1957—W. Rowan.
 Furnaces for metallic operations—1939—W. Yates.
 Gas, &c.—1444—W. R. Lake.
 Gloves, &c., compound for cleaning—1940—K. Malster.
 Gold and silver ores, treating—1921—A. L. Fleury.
 Grain, &c., apparatus for shovelling, &c.—1941—J. T. Parlour.
 Hay rakes—1975—A. Ridgway.
 Healds for weaving—1956—W. and O. Brooke.
 Hemp and flax, preparing—1778—P. Buchan.
 Hinges—1969—W. Carr.
 Hurdles, &c., wrought-iron—2003—W. Bayliss.
 Iron, enamelling—1804—J. Oakden and J. Pickin.
 Lace, &c., cutting off the superfluous portions of threads from sprigs or other devices made on—1946—J. Bail, jun.
 Lathes—1933—J. Toft.
 Looms—195—G. Richardson.
 Miners' safety cages, &c.—1919—J. H. Johnson.
 Miners' safety lamps—1911—T. Heppell.
 Moulds for casting—1977—C. Attwood.
 Mowing or reaping grass or grain crops—1963—J. P. and T. F. Wills and E. H. Cardell.
 Needle-cases, dial or indicating—1962—M. Demmer.
 Oils, hydrocarbon, burning—1927—N. D. Spartali.
 Omnibuses, &c., registering the number of passengers travelling by—1958—R. Wappenstein and R. Ray.
 Paper, waterproofing—1953—C. Humfrey and W. S. Webster.
 Pots, urns, &c., for containing hot beverages—1997—H. W. Hart.
 Poultry houses, &c.—1929—S. S. Bent.
 Railway brakes—1905—W. Unsworth.
 Railway brakes and signals—1967—T. Comfield, jun.
 Railway chairs and rails—1955—L. B. Prindle.
 Railway chairs and rails—1973—W. Thomson and J. Crossley, jun.
 Safes, strong rooms, &c.—1971—W. and J. Rhodes.
 Sewage, &c., deodorizing—1954—W. C. and R. G. Sillar and G. W. Wigner.
 Ships, propelling—1999—W. L. G. Wright.
 Shirt studs, &c.—1925—L. and A. Pyke.
 Steam engines—1934—C. H. Mitchell.
 Steam engines, &c.—1938—J. Howden.
 Steam engines, &c., governors for—1680—W. E. Newton.
 Stone, dressing—1961—J. J., and J. Booth.
 Stoves or furnaces for heating air—574—W. R. Lake.
 Tugers—1949—F. Worcester.
 Vessels containing liquids, closing and securing—1788—M. Chavagnat.
 Watches, lever escapements for—1808—W. E. Newton.
 Water, obtaining—1915—P. Warner.
 Water, purifying—1408—F. Wise and E. Field.
 Waterclosets—1981—W. S. Carr.
 Waterproofing compound—1932—C. Humfrey.
 Wool, &c., combing—1960—T. Whitehead.
 Yarns, dyeing—1968—J. McLeod.

PATENTS SEALED.

39. E. R. Southby.	61. J. L. Norton.
43. J. Combe.	62. G. Warsop.
51. H. McEvoy.	64. P. Spence.
52. J. Maury.	75. R. Girdwood.
53. W. T. Tongue.	81. J. Petrie, jun.
56. J. B. Dunn.	116. P. Pittar.
60. G. Warsop.	157. J. Batchelor and J. Smith.

From Commissioners of Patents' Journal, July 7.

PATENTS SEALED.

87. S. G. Archibald.	232. C. S. Barker.
92. J. Lewtas.	237. W. Oram.
93. J. H. Glew.	347. A. M. Clark.
103. J. Pilling and R. Scaife.	377. R. Morton.
155. F. Postill.	429. J. Nixon.
178. H. Kershaw.	467. W. E. Newton.
199. A. M. Clark.	885. W. and W. Arthur.
229. E. Tomlinson.	

PATENTS ON WHICH THE STAMP DUTY OF £50 HAS BEEN PAID.

1754. C. de Bergue.	1840. A. Denayrouze.
1764. W. Clapperton & A. Lyle.	1766. J. and R. S. Dale.
1784. W. Thomson & C. F. Varley.	1775. J. and A. Longbottom.
1806. W. Goulding.	1799. H. D. P. Cunningham.

PATENTS ON WHICH THE STAMP DUTY OF £100 HAS BEEN PAID.

1701. W. H. Ludford.	1695. P. Spence.
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Registered Designs.

4952—June 2nd—A traveller's wrapper—The North British Rubber Company, Castle Mills, Edinburgh.
 4953—June 18th—Indexed key cabinet—John Raphael Isaac, Liverpool.
 4954—June 20th—Metallic door mat or scraper—William Prockton, Launceston, Cornwall.
 4955—June 20th—Sack truck—Warren Sharman, Melton Mowbray.
 4956—June 29th—Knife and railway key—Unwin and Rogers, Sheffield.